

CLAIMS

1. A method of controlling communication channels between a base station and terminals, including channels that are shared by the terminals so as to communicate with said base station and at least one channel of the base station that is dedicated to one of the terminals, the method comprising the following steps:
- 10 - allocating a list of shared channels, which list is composed of several sets of shared channels, to the base station;
  - for a communication session between the base station and said terminal, indicating to the terminal, from a control facility, the list of shared channels that is allocated to the base station; and
  - 15 - at the base station level, selecting for the terminal one of the sets of shared channels and, independently of the control facility, indicating the selected set to the terminal by way of said dedicated channel.
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2. The method as claimed in claim 1, in which the selection of one of the sets of shared channels for the terminal is made in response to a command for configuration of processing resources (200) in the base station.
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3. The method as claimed in claim 2, in which said processing resources of the base station comprise several modules (200) to which are assigned processings relating to groups of channels respectively associated with said modules, and in which each set of shared channels that is used by the base station is included in the group associated with one of the modules.
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4. The method as claimed in claim 3, in which the set of shared channels that is indicated to the terminal is

selected by the base station in such a way as to form part of the same group of channels, which is associated with one of the modules, as said dedicated channel.

- 5     5.     The method as claimed in claim 4, in which the set of shared channels that is indicated to the terminal is selected by the base station in such a way as to form part of the same group of channels as each dedicated channel set up with said terminal.
- 10     6.     The method as claimed in any one of the preceding claims, in which said list of shared channels that is allocated to the base station is composed of channels for signaling from the base station to the terminals.
- 15     7.     The method as claimed in claim 6, in which said shared channels furthermore comprise at least one channel for traffic from the base station to the terminals, and in which the shared signaling channels
- 20     of the allocated list are intended to transmit information serving for the reception by the terminals of the traffic carried by the shared traffic channels.
- 25     8.     The method as claimed in any one of the preceding claims, in which said selected set is indicated to the terminal in a redundant manner.
- 30     9.     The method as claimed in any one of the preceding claims, in which said dedicated channel carries a stream of symbols destined for the terminal and in which said selected set is indicated to the terminal by modifying the value of at least one symbol of said stream.
- 35     10.    The method as claimed in claim 9, in which said selected set is indicated to the terminal periodically.
11.    The method as claimed in claim 9 or 10, in which the base station furthermore comprises at least one

module for interleaving symbols transmitted on said dedicated channel, acting over an interleaving period, in which, after interleaving, the value is modified of at least two symbols of said stream of symbols within  
5 an interleaving period, and in which the position of said symbols is chosen in such a way that symbols corresponding to said symbols before interleaving are dispersed among the stream of symbols.

10 12. The method as claimed in any one of claims 9 to 11, in which a second item of information is indicated to the terminal periodically, by modifying the value of at least one symbol of said stream carried by the dedicated channel, in which the position of the symbols  
15 whose value is modified is chosen, whether for the indication to the terminal of said selected set or of said second item of information, in such a way that symbols corresponding to said symbols before interleaving are dispersed among the stream of symbols.

20 13. The method as claimed in claim 12, in which said second item of information comprises an identifier (HI) of at least one of the shared channels of said selected set.

25 14. The method as claimed in any one of claims 9 to 13, in which the symbols whose value is modified are transmitted with a greater transmission power than the other symbols of the stream of symbols over said  
30 dedicated channel.

15. The method as claimed in any one of the preceding claims, in which the sets making up the list of shared channels that is allocated to the base station have the  
35 same number of channels.

16. The method as claimed in any one of claims 1 to 14, in which some at least of the sets making up the

list of shared channels that is allocated to the base station have numbers of channels that differ.

17. The method as claimed in any one of the preceding  
5 claims, in which the sets making up the list of shared channels that is allocated to the base station are disjoint.

18. The method as claimed in any one of claims 1 to  
10 16, in which some at least of the sets making up the list of shared channels that is allocated to the base station have channels in common.

19. A base station for a system for communicating with  
15 terminals, comprising:

- means for obtaining, in conjunction with a control facility, a list of shared channels that is allocated to the base station and is composed of several sets of shared channels;
- 20 - means for selecting, for one of the terminals, one of the sets of shared channels; and
- means for indicating to said terminal by way of a dedicated channel, independently of the control facility, which set is selected from the list  
25 allocated to the base station.

20. The base station as claimed in claim 19, comprising several modules (200) to which are assigned processings relating to groups of channels respectively  
30 associated with said modules, and in which each set of shared channels that is used by the base station is included in the group associated with one of the modules.

35 21. The base station as claimed in claim 20, in which the means of selecting the set of shared channels that is indicated to the terminal are devised so that said set is included in the same group of channels, that is

associated with one of the modules, as said dedicated channel.

22. The base station as claimed in claim 21, in which  
5 the means for selecting the set of shared channels that is indicated to the terminal are devised so that said set is included in the same group of channels as each dedicated channel set up with said terminal.

10 23. The base station as claimed in any one of claims 19 to 22, in which said list of shared channels that is allocated to the base station is composed of channels for signaling from the base station to the terminals.

15 24. The base station as claimed in claim 23, in which the shared signaling channels of the allocated list are intended to transmit information serving for the reception by the terminals of traffic carried by shared  
20 channels for traffic from the base station to the terminals.

25 25. The base station as claimed in any one of claims 19 to 24, in which the means for indicating the selected set to the terminal are devised so as to indicate said selected set in a redundant manner.

26. The base station as claimed in any one of claims 19 to 25, in which said dedicated channel  
30 carries a stream of symbols destined for the terminal, and in which the means for indicating the selected set to the terminal are devised so as to indicate said selected set by modifying the value of at least one symbol of said stream.

35 27. The base station as claimed in claim 26, comprising means for periodically indicating said selected set to the terminal.

28. The base station as claimed in claim 26 or 27, furthermore comprising at least one module for interleaving symbols transmitted on said dedicated channel, acting over an interleaving period, means for  
5 modifying, after interleaving, the value of at least two symbols of said stream of symbols within an interleaving period, and means for choosing the position of said symbols in such a way that symbols corresponding to said symbols before interleaving are  
10 dispersed among the stream of symbols.

29. The base station as claimed in any one of claims 26 to 28, comprising means for periodically indicating a second item of information to the  
15 terminal, by modifying the value of at least one symbol of said stream carried by the dedicated channel, and means for choosing the position of the symbols whose value is modified, whether for the indication to the terminal of said selected set or of said second item of  
20 information, in such a way that symbols corresponding to said symbols before interleaving are dispersed among the stream of symbols.

30. The base station as claimed in claim 29, in which  
25 said second item of information is an identifier (HI) of at least one of the shared channels of said selected set.

31. The base station as claimed in any one of  
30 claims 26 to 30, comprising means for transmitting the symbols whose value is modified with a greater transmission power than the other symbols of the stream of symbols over said dedicated channel.

32. A terminal for a communication system comprising  
35 at least one base station and a control facility and using channels shared with other terminals to communicate with the base station and at least one

dedicated channel from the base station to said terminal, the terminal comprising:

- means for receiving from the control facility a list of shared channels that is allocated to the base station, and is composed of several sets of shared channels, for a communication session with the base station; and
- means for receiving from the base station, by way of said dedicated channel, an indication of one of the sets of shared channels that is selected by the base station for said terminal.

33. The terminal as claimed in claim 32, in which said list of shared channels is composed of channels for signaling from the base station to said terminal and to the other terminals.

34. The terminal as claimed in claim 33, in which said shared channels furthermore comprise at least one channel for traffic from the base station to said terminal and to the other terminals, and in which the shared signaling channels of the allocated list are designed to transmit information serving for the reception by the terminals of the traffic carried by the shared traffic channels.

35. The terminal as claimed in any one of claims 32 to 34, in which said selected set is received in a redundant manner.

36. The terminal as claimed in any one of claims 32 to 35, in which said dedicated channel carries a stream of symbols destined for the terminal and comprising means for deducing right from the receipt of said stream, said selected set by extracting at least one symbol having a predetermined position in the stream of symbols received.

37. The terminal as claimed in claim 36, furthermore comprising at least one module for deinterleaving symbols received on said dedicated channel, acting over a deinterleaving period, and means for extracting, before deinterleaving, at least two symbols belonging to distinct time slots separated by a fixed period of said stream of symbols within an interleaving period, said extracted symbols having a variable predetermined position between two successive time slots containing said symbols.

38. The terminal as claimed in claim 36 or 37, furthermore comprising means for receiving a second item of information with a stealing period and means for extracting at least two symbols from said stream carried by the dedicated channel, whether for the indication to the terminal of said selected set or of said second item of information, said extracted symbols having a predetermined position.

39. The terminal as claimed in claim 38, in which said second item of information is an identifier (HI) of at least one of the shared channels of said selected set.